

## IN THE CLAIMS

Please amend the claims as follows:

1. (Original) A quartz glass cylinder for producing an optical component, comprising an inner bore which is mechanically treated to a final dimension and provided with an etched structure due to an etching treatment following mechanical treatment, characterized in that the etched structure comprises cracks having a depth of not more than 2.0 mm and a width of not more than 100  $\mu\text{m}$ .
2. (Original) The quartz glass cylinder according to claim 1, characterized in that the etched structure comprises cracks having a depth of not more than 1.0 mm and a width of not more than 50  $\mu\text{m}$ .
3. (Original) The quartz glass cylinder according to claim 1, characterized in that the etched structure comprises cracks having a depth of not more than 0.5 mm and a width of not more than 20  $\mu\text{m}$ .
4. (Amended) The quartz glass cylinder according to **claim 1** [~~any one of the preceding claims~~], characterized in that the etched structure comprises cracks having a depth of at least 30  $\mu\text{m}$  and a width of at least 5  $\mu\text{m}$ .
5. (Amended) The quartz glass cylinder according to **claim 1** [~~any one of the preceding claims~~], characterized by an outer diameter of at least 150 mm.
6. (Amended) A method for producing a quartz glass cylinder comprising an inner bore, according to **claim 1** [~~any one of claims 1 to 5~~], in that the inner bore of the quartz glass cylinder is mechanically treated to a final dimension and subsequently subjected to an etching treatment, characterized in that the mechanical treatment comprises a

- plurality of subsequent removal processes with a successively smaller removal depth, the inner bore comprising subsurface cracks of a depth of not more than 2 mm after the last removal process, and that the inner bore is subsequently subjected to an etching treatment such that an etching removal with a depth of not more than 50  $\mu\text{m}$  is achieved.
7. (Original) The method according to claim 6, characterized in that the etching treatment yields an etching removal with a depth of not more than 25  $\mu\text{m}$ .
  8. (Original) The method according to claim 6, characterized in that the etching treatment yields an etching removal with a depth of not more than 10  $\mu\text{m}$ .
  9. (Amended) The method according to claim 6 [~~any one of claims 6 to 8~~], characterized in that the etching treatment yields an etching removal with a depth of at least 2.5  $\mu\text{m}$ .
  10. (Amended) The method according to claim 6 [~~any one of claims 6 to 9~~], characterized in that the etching treatment includes a first etching step in an etching solution containing hydrofluoric acid, and a second etching step in an etching solution containing nitric acid.
  11. (Amended) The method according to claim 6 [~~any one of claims 6 to 10~~], characterized in that the etching treatment is carried out at a mean etching rate of not more than 3  $\mu\text{m}/\text{min}$ .
  12. (Original) The method according to claim 11, characterized in that the mean etching rate is not more than 1  $\mu\text{m}/\text{min}$ .
  13. (Original) The method according to claim 11, characterized in that the mean etching rate is not more than 0.1  $\mu\text{m}/\text{min}$ .

14. (Amended) Use of a quartz glass cylinder according to **claim 1** [~~any one of the preceding claims 1 to 5~~] for producing a preform for an optical fiber in an RIC method by collapsing the cylinder onto a core rod and by simultaneously elongating said cylinder with formation of the preform.
15. (Amended) Use of a quartz glass cylinder according to **claim 1** [~~any one of the preceding claims 1 to 5~~] for producing an optical fiber in an RIC-ODD method by collapsing the cylinder onto a core rod and by simultaneously elongating said cylinder with formation of the fiber.